



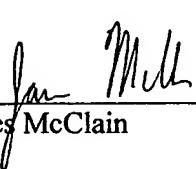
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

DECLARATION PURSUANT TO C.F.R. § 1.132

I, James McClain, declare the following:

1. I am the named inventor on the above referenced patent application.
2. I am employed by the Archer Daniels Midland Company, the assignee of the reference patent application as a Research Scientist. I have worked in the field of preparation of resistant starch from unmodified starch for four years. My duties in this capacity included efforts to find conditions to optimize the opposing tendencies of increasing the whiteness level in the production of resistant starch while at the same time producing commercially satisfactory yields.
3. It is my understanding that the Examiner of the present application has rejected claims that recite the elements of making a resistant starch using temperatures of 140°C to 180°C while achieving a whiteness level of at least 65, on grounds of lack of enablement, allegedly because there is no specific teaching in the Examples that a whiteness greater than 65 can be achieved at these reaction temperatures in view of a reference by Ohkuma that teaches these reaction temperatures lead to lower whiteness levels.
4. The examiner is factually incorrect. A whiteness level of greater than 65 can be, and is in-fact, obtained using the methods taught in the present application.
5. Attached hereto as Exhibit A are actual whiteness values and percentage yield amounts obtained from the particular procedures represented generically (i.e., as an average of the actual experiments) in Example 1 of the application conducted at 140°C. Attached hereto as Exhibit B are actual whiteness values and percentage yield amounts performed in separate procedures conducted at 170°C. The dates of the experiments are indicated. The data from each experimental set shows reactions at different pH values, for increasing amounts of time. To focus on the most pertinent finding for each temperature, please reference the data set from the third experiment at 140°C in Exhibit A and the second experiment at 170°C in Exhibit B, which are the experiments graphically charted in the Exhibits.
6. The data shows that at 140°C, resistant starch having a whiteness level varying from 68 to 80 was obtained in yields of 45.0% to 54.4%. Similarly, the data for 170°C shows that whiteness levels ranging from 63 to 70 were obtained in yields of 60.9% to 64.6%. The general trend of the data shows that for any given condition, shorter reaction times produce starch of higher whiteness, albeit at lower yields. The data in experiment 1 of Exhibit B shows that whiteness levels as high as 73 was obtained in a two hour reaction at 170°C at a different pH.

7. Accordingly, for a given reaction condition within the claimed temperature range, whiteness levels of greater than 65 can be obtained merely by varying reaction times – with the understanding that yield is expected to be lower for shorter reaction times at whatever temperature is selected. The charted data for the 170°C experiment 2 also emphasizes that for a given reaction condition, there is a time intersection point where the whiteness line and yield line cross, which represents a time for the reaction that should be the optimal compromise between yield and whiteness. This is also true for experiment 2 at 140°C, although not charted.
8. Actual data for a temperature of 180°C is not available. However, the unmodified untreated starch used in these experiments has a whiteness of 89. Given that the data show that a selected pH and temperature, one need only shorten the reaction time to achieve a given whiteness level, and that even a whiteness of 73 was achievable at 170°C in a two hour reaction (Exhibit B, experiment 1) it is almost a certainty to expect that even at 180°C there will be some shorter reaction time where a whiteness level of at least 65 would be achieved – albeit it is likely the yield would be less because shorter reaction times produce lower yields.
9. The aforementioned statements are true or based upon facts believed by me to be true. This declaration is made under penalty of perjury and with knowledge that false or misleading statements may jeopardize the invalidity or unenforceability of any rights in a patent that may be granted on the above-referenced application.



James McClain

2-26-08

Date



EXHIBIT A

Experiments at 140 C

DATE	INITIAL PH	TEMP (C)	TIME (HRS)	RESISTANT STARCH (%)	WHITENESS	Correlation between resistant starch and whiteness	Calculated resistant starch at 65 whiteness
Experiment 1							
1/7/2002	2.51	140	1.50	54.7	64		
			1.83	58.2	57		
			2.17	58.9	55		
			2.83	61.2	48		
						-0.992	54.3
Experiment 2							
1/14/2002	2.54	140	1.25	47.9	75		
			1.50	51.6	70		
			1.75	54.3	67		
			2.25	57.0	59		
						-0.974	54.5
Experiment 3							
1/16/2002	2.49	140	1.25	45.0	80		
			1.58	49.6	75		
			2.00	52.3	71		
			2.50	54.4	68		
						-0.997	56.4
Average	2.51	140					55.05

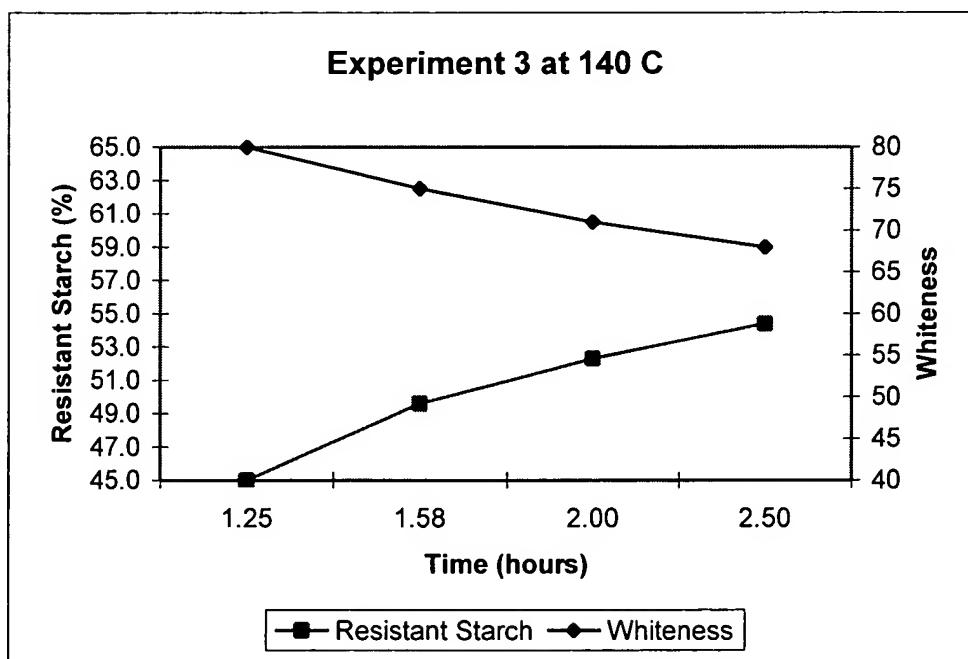


EXHIBIT B

Below are additional experiments conducted at 170 F

DATE	INITIAL PH	TEMP (C)	TIME (HRS)	RESISTANT STARCH (%)	WHITENESS	Correlation between resistant starch and whiteness	Calculated resistant starch at 65 whiteness
Experiment A							
3/26/2001	2.67	170	2.00	53.2	73		
			2.50	56.9	65		
			3.00	60.4	58	-1.00	57.0
Experiment B							
4/1/2002	2.29	170	0.92	60.9	70		
			1.08	63.2	65		
			1.25	64.6	63	-0.995	63.4
Experiment C							
4/4/2002	2.48	170	1.50	59.7	68		
			1.75	61.2	64		
			2.00	62.2	61	-1.00	60.8

